

CLIMATE LITERACY FOR ALL

Bridging Knowledge and Action

17th December 2024

Venue: Hilton, Chennai

9.00 am - 5.00 pm



Climate Literacy Conference 2024

CLIMATE LITERACY FOR ALL

Bridging Knowledge and Action























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Citizen consumer and civic Action Group (CAG) is a 39 year old non-profit, non-political and professional organisation that works towards protecting citizens' rights in consumer and environmental issues and promoting good governance processes including transparency, accountability and participatory decision-making.





The impacts of climate change are becoming increasingly severe, with extreme weather events, rising temperatures and resource depletion threatening ecosystems and livelihoods. With the need for climate literacy coming into increasingly sharp view, CAG organised the Climate Literacy for All – Bridging Knowledge and Action Conference 2024 on December 17 at the Hilton Hotel, Chennai. The conference brought together policymakers, educators, researchers, civil society organisations and the general public to exchange insights and strategies for addressing climate change, aligning with SDG 13: Climate Action, by fostering climate literacy.

The one-day conference was designed as a common platform for dialogue, shared insights and actionable strategies that would promote climate literacy across sectors and communities in Tamil Nadu and beyond.



OVERVIEW

The Climate Literacy Conference 2024 featured three focused sessions addressing climate literacy for policymakers, the general public and students. Discussions highlighted the critical role of climate literacy in shaping informed policies, empowering citizens to adopt sustainable practices and preparing the next generation for a changing world. Each session, moderated by experts, included presentations, panel discussions and interactive Q&A segments.

The event also featured engaging activities like a musical performance and a stand-up comedy routine, aimed at spreading climate awareness in innovative ways. The conference underscored the importance of robust climate education to combat climate change and its impacts effectively.

INAUGURAL SESSION

Welcome speech

Ms. S. Saroja

Ms. Saroja, Executive Director of CAG, inaugurated the Climate Literacy for All -Bridging Knowledge and Action - Conference 2024 with a powerful message on the urgency of addressing climate change, which impacts every aspect of life, from extreme weather to rising sea levels. She emphasized the critical need to act now, noting that over 85% of the global population is already experiencing the effects of climate change. Stressing the importance of integrating climate literacy into decision-making processes, she also called for empowering citizens to make sustainable choices that would lead to a climateresilient future. She underscored the role of collective action in driving systemic change, highlighting the conference as a platform for sharing best practices, innovative strategies and advocating for policies that prioritise sustainability. Concluding her address, she expressed hope and determination for the day-long deliberations, inviting all participants to collaborate in shaping a more informed and resilient society.





Ms. S. Saroja, Executive Director, CAG

KEYNOTE Address



Thiru Anbil Mahesh Poyyamozhi, Honourable Minister of School Education, Tamil Nadu

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Thiru Anbil Mahesh Poyyamozhi

Honourable Minister for School Education, Thiru Anbil Mahesh Poyyamozhi, began his address by underscoring the pressing need for climate literacy and the importance of adopting sustainable lifestyles rather than attributing natural disasters solely to nature's fury. He emphasised that humanity holds the capacity to mitigate the impact of such disasters, but this requires strategic planning, concerted efforts and the efficient execution of policies. Highlighting the proactive steps taken by the Honourable Chief Minister of Tamil Nadu, he mentioned the protection of over one lakh families in vulnerable areas like Pallikaranai and Sunnambu Kolathur during times of crisis as a testament to the state's commitment. He also acknowledged that politicians are not magicians and that such transformative changes demand time, resources and collective effort.

To strengthen the connection between students and the environment, the Minister announced Tamil Nadu's ₹2.32 crore initiative to encourage students to respect and love nature. This will focus on building disaster safety and knowledge, emphasising the critical need for climate resilience to be instilled from



an early age. Under this initiative, the students will be encouraged to come up with innovative solutions to combat climate change. He also brought attention to alarming climate change statistics, noting a staggering 60% rise in natural disasters over the past two decades, with metropolitan cities bearing the brunt of these calamities. Drawing from the 2020 United Nations risk assessment report, he stated that India, alongside China and the United States, has faced the most significant impacts from natural disasters, underlining the urgency of immediate action and education to tackle this escalating crisis.

TEXTBOOK RELEASE





FOCUS (Facts On Climate Change Unravelled for Students) for Beginners released by Minister for School Education, Thiru Anbil Mahesh Poyyamozhi

The launch of FOCUS for Beginners: Facts On Climate Change Unravelled for Students marked a pivotal moment in advancing climate literacy for upper-primary school children across India. This textbook, the product of months of dedicated collaboration, simplifies the complexities of climate change into engaging and accessible lessons for young minds. Featuring vibrant illustrations, interactive activities and well-structured concepts, it promises to make learning about climate change both enjoyable and impactful. The content has been researched and compiled by Ms. Mala Balaji, with guidance from Mr. Vamsi Sankar Kapilavai, Ms. S. Saroja, Ms. Amudha Vijayakumar and Ms. Benedicta Isaac. Special acknowledgement was also given to Ms. Kavitha Krishnakumar for her creative inputs and Ms. Nancy Raj Vimal for her captivating illustrations, which are set to inspire young readers.

The textbook was officially unveiled by the Honourable Minister for School Education, Thiru. Anbil Mahesh Poyyamozhi, in the presence of Dr. Senthil Kumar, Principal Secretary to the Government of Tamil Nadu, Department of Environment, Climate Change and Forests, amidst an enthusiastic audience. The event also recognised expert reviewers, including Ms. Padmini Sriram, a distinguished educationist and Mr. Gnana Dinakar Raj S. a passionate teacher known for his innovative approaches to teaching. As the textbook prepares to be piloted in government schools following its translation into Tamil, it represents a significant leap forward in equipping students to tackle climate challenges with knowledge and hope.



INAUGURAL ADDRESS



Dr. P. Senthil Kumar, IAS, Principal Secretary to the Government of Tamil Nadu, DOEFCC

Dr. P. Senthil Kumar

In his inaugural address, Dr. P. Senthil Kumar, IAS, Principal Secretary to the Government of Tamil Nadu, highlighted the urgent global need to limit temperature rise to 1.5 degrees Celsius, citing clear shifts in climate and rainfall patterns. He emphasised Tamil Nadu's leadership in climate action, particularly through the Green Tamil Nadu Mission, which aims to increase the state's green cover from 24% to 33% by 2030. Dr. Kumar also underscored the state's commitment to wetland preservation, with plans to redevelop 100 water bodies and the importance of coastal restoration, supported by a ₹1,000 crore World Bank-funded project. He stressed that Tamil Nadu's efforts align with a sector-specific approach to climate change, integrating environmental conservation with sustainable practices and education campaigns such as the "Meendum Manjapai" campaign.

Dr. Kumar further emphasized the significance of good governance in climate action, highlighting the processes, policies and systems through which decisions about climate action are made, implemented, and monitored. He stressed the importance of ensuring accountability, transparency, and collaboration among stakeholders to address climate challenges effectively. Dr. Kumar also referenced the Supreme Court's recognition of the right to be free from climate change impacts as a fundamental right, underscoring the critical role of governance in safeguarding this right. He also addressed the challenges Tamil Nadu faces, citing the extreme weather conditions experienced in 2024, including 180 thermal discomfort days in Chennai. Dr. Kumar concluded by highlighting the role of education and policy in building a resilient and sustainable future, noting that instilling environmental awareness in the younger generation is crucial for long-term climate resilience. Through these initiatives, Tamil Nadu is setting a strong example of proactive climate action.

CAG'S WORK ON **CLIMATE LITERACY**

Before the sessions commenced, Mr. Shankar Prakash, Senior Researcher, Environment and Climate Action at CAG, provided an overview of CAG's work on climate literacy. He highlighted key studies, including:

Baseline Study on Climate Literacy in Tamil Nadu

This study assesses the understanding of climate change, its impacts and the susceptibility of various groups to its negative effects, among school and college students, youth without formal education and government officials. It also evaluates existing knowledge products and delivery mechanisms to identify gaps and recommend programmes to enhance climate literacy across stakeholders.

Environmental Attitudes Among College Students

The study assessed the environmental attitudes of college students across Tamil Nadu, representing diverse educational streams and ensuring gender proportionality. Data collection was facilitated by trained field investigators using the KOBO toolbox, with tools translated into Tamil for accessibility. While students exhibited varied attitudes, the study highlighted that positive attitudes don't always translate into behavioural change, emphasising the need for deeper, longitudinal research to explore this gap.

Recommendations include promoting ecocentrism over anthropocentrism, addressing the dominance-over-nature mindset and highlighting the limitations of science and technology. Insights aim to guide revisions to the UGC's Environmental Studies curriculum, fostering a more action-oriented and valuedriven approach.

Climate Literacy and Environmental Attitudes among MLAs

This ongoing study aims to assess the climate literacy and environmental attitudes of Members of the Legislative Assembly (MLAs) and propose strategies to enhance their understanding of climate issues. Preliminary findings, based on interviews with 20 MLAs, reveal an average climate literacy score of 7 out of 20, with the highest score recorded so far being 15. These insights underline the need for targeted interventions to improve climate literacy among elected representatives, enabling them to make informed decisions and policies to address pressing environmental challenges. The final report is expected to be out by the second week of January 2025.

Climate Change Curriculum

FOCUS for beginners textbook for grades 3 to 5 was released at this event. This textbook is the result of months of meticulous planning,

research and the collaborative effort of educators, experts and artists who came together to bring this vision to life. The book is based on the National Council of Educational Research (NCERT) framework, ensuring it meets national education standards while addressing key gaps in climate literacy for young learners. The development process involved extensive consultations with educators and subject experts to ensure the content was age-appropriate, accurate and impactful. Expert reviewers vetted the material to maintain a balance between scientific rigour and simplicity, making complex concepts relatable to young minds.

In 2023, CAG had also developed a climate curriculum for middle grade students. The FOCUS textbook for grades 6 to 8 aimed to deepen students' understanding of climate

CAG's Work on Climate Literacy



Mr. Shankar Prakash, Senior Researcher -Environment and Climate Action, CAG

change and its implications. The book was piloted in both English and Tamil medium schools, where it was met with much regard and praise. A survey of the pilot indicated that teachers found the material to have been tailored to bridge educational gaps and empower students to act as climate-conscious citizens.

These textbooks are not merely a resource; they are a transformative step toward empowering young learners to understand, adapt to and address the challenges of climate change with hope and determination. By providing a strong foundation in climate literacy, we aim to inspire children to become responsible stewards of the environment and agents of change.

SESSION 1

CLIMATE LITERACY FOR DECISION-MAKERS:

Shaping Policy by Adopting a Multi-Dimensional Approach

The session highlighted the critical role of climate literacy in empowering decision-makers to craft effective and inclusive policies for sustainability and resilience. Key discussions focused on the link between climate knowledge and good governance, lessons learned from successful and failed climate-informed policies and strategies for fostering cross-departmental collaboration to achieve long-term climate goals. The aim was to identify actionable approaches that bridged knowledge and practice, ensuring transformative and enduring climate policies. The session was moderated by Mr. Vamsi Sankar Kapillavai, Senior Researcher, Environment and Climate Action.



Mr G. Sundarrajan, Environmental Activist & Volunteer Coordinator, Poovulagin Nanbargal

Mr. G. Sundarrajan, a well-known environmental activist and the volunteer coordinator for Poovulagin Nanbargal, has dedicated his life to promoting environmental consciousness and awareness through various platforms. His tireless efforts in advocating for sustainable environmental practices have made him a prominent voice in the field of climate action.

As a speaker, Mr. Sundarrajan emphasised the critical importance of understanding climate change for effective governance. He highlighted the alarming impacts of extreme weather patterns, such as significant rainfall in Chennai and over 180 thermal discomfort days due to high humidity in 2024, stressing the urgency of addressing climate change. He warned that 2024 may be recorded as the hottest year in human history, marking a departure from the stable climate conditions that have supported human survival for the past 10,000 years.

Mr. Sundarrajan questioned whether current policies are adequate to tackle these challenges, noting that Tamil Nadu's resources will be stretched in efforts to mitigate the impacts of climate change, particularly as there is insufficient funding for vital sectors such

> Mr. G Sundarrajan Crafting Successful Policies: The Link Between Climate Knowledge and Good Governance

as education and health. He asserted that we have entered an era of climate governance—a period characterized by concerted efforts, policies, and frameworks at various levels (local, national, and global) to address and manage the challenges posed by climate change. He further emphasised that urgent collective action from both the public and government institutions is essential to combat this existential threat.

He emphasised that climate change cannot be resolved simply by changing governments and called for intergenerational equity in managing natural and environmental resources. As climate change becomes a central issue in Tamil Nadu's political discourse, he advocated for a unified effort among multiple stakeholders, including government bodies, policymakers, civil society organisations, educational institutions, businesses and the general public to hold the government and bureaucrats accountable for taking meaningful climate action. Mr. Sundarrajan concluded by highlighting the responsibility of future generations to promote climate literacy and push for effective climate policies on a global scale.

Ms. Pallavi Das, a Programme Lead at the Council on Energy, Environment and Water (CEEW), works with the Low-Carbon Economy Team, focusing on long-term decarbonization strategies for India. Ms. Das addressed the ongoing debate around achieving net-zero emissions, emphasizing its critical role in controlling global temperatures. She pointed out that while many countries and companies have set net-zero targets, India aims to achieve this by 2070, with Tamil Nadu leading the way as the first state to announce such a goal.

Ms. Das highlighted that the energy sector is the largest emitter of greenhouse gases, followed by the waste sector, underscoring the need for careful management of these areas. Despite India's rising emission rates, especially from thermal and coal power plants, most climate policies have focused on the energy-climate interface. She also mentioned India's plans to establish a carbon market. Ms. Das highlighted the success of the UJALA initiative, which, through collaborative efforts, significantly reduced LED bulb costs from Rs. 300-350 to Rs. 70-80, resulting in increased LED adoption, energy savings and improved lighting quality. She also emphasised the importance of the Standards & Labeling Program, which includes 16 mandatory products and periodically updated star ratings to promote higher efficiency. Additionally, the initiative has effectively raised consumer awareness about adopting energy-efficient technologies.

Ms. Das also discussed the challenges facing India's renewable energy and electric vehicle (EV) initiatives. While progress has been made, issues persist. For example, the Generationbased Incentive (GBI) for wind energy faces uncertainty and the possible removal of incentives, which could hinder future growth. The Performance Achievement and Trade (PAT) scheme lacks stringent targets, leading to unsold Energy Certificates (ECerts). The FAME II scheme for EVs struggles with import



Ms. Pallavi Das, Programme Lead, CEEW

dependence on batteries, inadequate funding for EV charging infrastructure and a focus on two-wheelers, limiting broader adoption. These challenges underscore the need for more effective policy design and implementation to drive sustainable energy solutions in India.

Challenges also persist in the form of unmet renewable purchase obligations due to weak enforcement and long-term power purchase commitments. According to Ms. Das, the



Ms. Pallavi Das

Climate-Informed Policies: Lessons from Successes and Failures

success of climate policies relies on credibility, certainty, stringent enforcement, capacity building and adequate resource allocation. She noted a shift towards increasing solar power and reducing coal usage while advocating for the development of hydrogen and biofuels as essential components for achieving netzero targets. Lastly, Ms. Das emphasized the importance of a just transition and the need for India to effectively adapt to the impacts of climate change.



Ms. Madhuparna Maiti, Policy researcher

specific plans to bridge gaps between planning and implementation departments. According to the Adaptation Report 2024, 40% of the implementation gap in climate initiatives is due to institutional barriers.

She also identified gaps in understanding the anthropocene nature of climate change and its socio-economic impacts, both in educational pedagogy and within policy frameworks. Her recommendations included adopting a more taxonomical approach – a structured way to break down complex information into manageable and logical units, avoiding the dilution of adaptation schemes within broader climate missions and establishing standardised definitions and methodologies.

Ms. Madhuparna Maiti, a policy researcher specialising in climate, sustainable development and international cooperation, focused on integrating theory with practice through interdisciplinary approaches in research, advocacy, program design, implementation and communication. Maiti discussed the significant impact of climate change on GDP and livelihoods, emphasising that merely meeting climate targets is not enough. She pointed out that most countries fail to include climate change in their school curricula, which limits awareness and understanding.

Ms Maiti stressed the importance of the National Action Plan on Climate Change (NAPCC) and the need for synergy between various departments to effectively manage its eight missions. She advocated for sector-



Ms. Madhuparna Maiti

Building Cross-Departmental Collaboration for Long-Term Climate Goals

While public awareness of climate change is growing, Ms. Maiti emphasised that significant disparities exist between national and local perceptions. She stressed the need for a shift towards participatory action and the integration of scientific knowledge in policy-making. Ms. Maiti also highlighted the importance of aligning State Action Plans on Climate Change (SAPCCs) with the NAPCC and contextualising climate action at a granular level. Furthermore, she emphasised the necessity of a sectoral approach by mapping the linkages between various sectors and climate action. Crosscollaboration between local and national organisations is vital for effective climate action, as climate change is an evolving, intragenerational issue that requires continuous adaptation and engagement.

SESSION 2

EMPOWERING CITIZENS THROUGH CLIMATE LITERACY

Knowledge for Action

In this session, the focus was on the crucial role of climate literacy in empowering individuals and communities to make informed decisions that contribute to a sustainable future. Understanding the impacts of climate change was key to developing practical, actionable solutions and enabling citizens to take ownership of climate action. The session highlighted strategies for building climate awareness, tackling eco-anxiety and combating misinformation, with the aim of encouraging proactive engagement for a greener tomorrow. This session was moderated by Ms Divya Senthil, Senior Researcher, Sustainable Transportation, CAG



Ms Mala Balaji, Researcher, Environment and Climate Action, CAG

Ms Mala Balaji, a researcher with the Environment and Climate Action team at CAG, emphasised the growing frequency and severity of natural disasters as clear indicators of climate change's adverse effects. She highlighted the broader implications of disrupted ecological cycles on humanity, urging the need to understand the science of climate change and its interconnectedness with all forms of life. Ms. Balaji stressed the importance of recognising how human activities, such as fossil fuel combustion and transportation emissions, contribute to climate change. Rising sea levels, for example, result in coastal flooding, displacement and the potential extinction of species. In 2024, heat waves caused 733 deaths, with 40,000 heat stroke cases, while floods and droughts affected millions of hectares, threatening agricultural productivity with a projected 40% decline by 2100.

Advocating for energy conservation and sustainable practices, Ms Balaji recommended the use of energy-efficient appliances, like LED bulbs and urged individuals to unplug electronics when not in use to reduce phantom energy consumption. She also encouraged the adoption of solar electricity, suggesting that if 10% of Indian households switched to solar, it could generate 120 million megawatts of

Ms. Mala Balaji Why Does Climate Literacy Matter? Helping Citizens Make Sustainable Choices

electricity. She emphasised walking, cycling and carpooling for shorter distances as effective means to reduce emissions.

Ms. Balaji further stressed the importance of water conservation. She recommended rainwater harvesting, fixing leaks and taking shorter showers to preserve water resources. She also discussed responsible consumption, noting that the increasing reliance on disposable products is depleting natural resources. She advocated for the 5 R's (refuse, reduce, reuse, repair and recycle) approach, as India produces 62 million tons of waste annually, with only 12 million tons being treated.

Additionally, she highlighted the importance of supporting local businesses, explaining that buying local products not only reduces transportation emissions but also strengthens the local economy. She noted that studies indicate every ₹100 spent at a local business retains approximately ₹68 within the community, compared to just ₹43 when spent at a chain store. She also encouraged voters to support climate-conscious candidates. Ms. Balaji concluded by emphasising the critical role of advocacy and civic engagement in raising awareness and fostering collective efforts for building a climate-resilient future. Dr. Alphonsa Jose K, an Assistant Professor and Program Coordinator for the BSc Psychology Honours program at Christ University, Bengaluru, holds a PhD in Applied Psychology from Pondicherry University, specialising in Environmental Psychology and Conservation Behaviors. In her discussion, Dr. Jose emphasised the growing awareness of climate change, noting that concern for the issue has significantly increased-from just 2.6% in 2006 to 89.5% in 2020.

However, she pointed out that many individuals still tend to avoid confronting the long-term consequences of climate change. She explored the emotional dimensions of climate change, such as eco-anxiety, the distress caused by the anticipation of environmental collapse and eco-quilt, the feelings of responsibility for contributing to environmental degradation. She also highlighted solastalgia, a form of distress caused by environmental change in one's home environment, leading to a sense of loss and longing. Dr. Jose discussed how personal experiences often shape perceptions of climate risks, with supportive environments and community engagement playing a crucial

role in fostering climate advocacy. The emotional toll of climate change was further explored through the lenses of eco-anxiety and eco-quilt, while she stressed the importance of mindfulness practices, like focusing on one's breath, to manage climate-related stress. Dr. Jose also highlighted the role of eco-journaling as a tool for self-reflection and emotional release

Moreover, she emphasised the importance of collective climate action, citing initiatives like Climate Lab and CAM (Climate Action Movement), which facilitate collaborative efforts toward addressing climate issues. Communication and collaboration, she noted, are essential for fostering shared understanding and driving effective climate action. Dr. Jose's presentation covered these interventions and emotional aspects in detail, providing valuable insights into the psychological dimensions of climate change and how they can be addressed through individual and collective efforts.







Dr. Alphonso Jose

Coping with Eco-Anxiety: Strategies and Support

Dr. Alphonsa Jose K, Assistant Professor and Program Coordinator, Christ University



Ms. Sadhika Tiwari, Journalist, DW News

costs. She discussed the inefficiency of carbon credits and the problematic nature of corporate-driven afforestation projects, drawing attention to their hidden costs and limited effectiveness.

Moreover, she raised awareness about the overlooked social dimensions of climate disasters, such as forced labour in "climateconscious" clothing industries and human trafficking linked to environmental catastrophes like cyclones. Ms. Tiwari specifically cited the severe droughts in the Bundelkhand region as an example of how government responses often focus narrowly on crop loss, without considering the broader socio-economic impacts.

Ms Sadhika Tiwari is an award-winning multimedia journalist with nearly a decade of experience working with leading news outlets. She is currently the host of Eco India, a show on climate solutions aired by Deutsche Welle (DW News), a prominent international TV news channel based in Europe.

Ms. Tiwari focused on the critical need for accurate and reliable information in the fight against climate change. She addressed the complexities of climate change, pointing out that it exacerbates pre-existing challenges related to urban planning, local governance and infrastructure. She emphasised that identifying the true causes of climate issues is essential, particularly in a country like India, where preparedness for climate impacts is often inadequate. Ms. Tiwari also critiqued the practice of greenwashing, highlighting how some corporate initiatives, though marketed as eco-friendly, actually have higher environmental



Ms. Sadhika Tiwari

Debunking Climate Myths: Effective Strategies Against Misinformation

She concluded her talk by reiterating that humans are solely responsible for global warming over the past 50 years. With the 10 hottest years since the 1800s occurring between 2014 and 2024, she stressed the urgency of collective action to mitigate the effects of climate change, especially as the last decade has seen the hottest years on record.

Climate Literacy for All - Bridging Knowledge and Action



Mr. Sudharshan, Stand-up Comedian



The conference also featured a special standup comedy performance by Mr. Sudarshan, a renowned writer, storyteller, stand-up comedian and comedy producer. Known for his razor-sharp wit and engaging narratives, Mr. Sudarshan captivated the audience with his unique blend of humour and insightful commentary on climate issues. A winner of the prestigious Sterling Reserve Comedy Project by Comedy Central India, his performance skillfully combined entertainment with climate awareness, inspiring action in a relatable and engaging manner. Mr. Sudarshan's dynamic presence added a lighthearted yet impactful touch to the event, leaving the audience both entertained and motivated to think about the climate challenges we face.

Music performance by Ashika and Band



Ashika and Band, Musicians

Following the stand-up comedy performance, the conference featured a music performance by Ms. Ashika and her band, which creatively showcased their own compositions and lyrics revolving around the theme of climate literacy. Ms. Ashika Arunachalam, an independent artist and Communications Associate at CAG. captivated the audience with her heartfelt songs in Tamil. Since 2021, she has used her music to engage and educate communities on important social issues, performing across various platforms like Aval Vikatan Awards, Sun TV and Surya TV. Mr. Balaji Pandey, a skilled singer and guitarist trained in Hindustani Classical music, brought his years of experience to the stage, blending soulful melodies with powerful climate messages. Mr. Kargil, a professional drummer and percussionist with over 15 years of performance experience, added depth and

rhythm to the band's powerful performance, having performed with prominent platforms like Blacksheep, Vijay TV and Sun TV. The musical performance was a reminder of the harmony that can exist between humanity and nature, effectively conveying the urgent need for climate action through music.



SESSION 3

BUILDING RESILIENT MINDS

Climate Literacy for the Next Generation

This session focused on empowering the next generation with the knowledge and skills required to navigate the challenges of a changing world. With climate change impacting every aspect of life, preparing students to become informed, resilient and active citizens is critical. The session explored how climate literacy can be seamlessly integrated

into school curricula, engaging students in climate action through innovative methods and citizen science. It also highlighted career opportunities for young minds passionate about environmental sustainability and the urgent need for green careers. This session was moderated by Ms. Sowmya Kannan, Researcher, Sustainable Transportation, CAG.



Ms.Kavitha Krishnakumar, Founder, Sthairya Academy

Ms. Kavitha Krishnakumar is an experienced English Language Specialist, Cambridge CELTA certified educator and National Geographic certified educator with a strong background in teaching, pedagogy and curriculum development. With a deep commitment to fostering critical thinking and problem-solving skills in young students, Ms. Krishnakumar discussed the importance of preparing the younger generation for a rapidly changing world. She emphasised that younger students are more adaptable and capable of absorbing information, making them well-suited to take on the challenge of addressing global issues such as climate change.

In her talk, Ms. Krishnakumar introduced a logical framework analysis approach to help students gain an all-round understanding of complex issues. She suggested that by asking the questions "why," "what," and "how," students can break down problems into manageable components and find solutions. Recognising the speed of change in the world, she stressed the need to equip students with the tools to think proactively, focusing on solutions rather than problems. This, she argued, is essential for preparing students to not only understand

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the challenges of the future but also to actively contribute to creating solutions.

Ms. Krishnakumar introduced two key acronyms, TALK and GUIDE, as frameworks for engaging students. TALK stands for Think solutions, Address one thing at a time, List what worked out and what was learned from mistakes and Knowledge sharing. GUIDE encourages educators to Give knowledge that helps students help themselves, Urge students to observe, Immerse them in patterns, Demonstrate proactiveness and Empower them to take charge.

She highlighted that with the right kind of information and guidance, even elementary school students could come up with solutions to complex problems like climate change, stressing the importance of fostering a mindset that embraces curiosity, problemsolving and responsibility. Through her talk, Ms. Krishnakumar emphasised that empowering the next generation with the right skills and mindset is key to creating a sustainable future.





Ms. Soumi Duttagupta, Founder and Mentor, Regenesys

Ms. Soumi Duttagupta

Integrating climate education across subjects: Engaging methods and citizen science Ms. Soumi Duttagupta is the founder and mentor of Regenesys, an educational initiative dedicated to interdisciplinary, sustainable and nature-inspired learning. With her passion for integrating nature and sustainability into education, Ms. Duttagupta emphasised the importance of recognising the resilience and adaptability of life in the face of extreme challenges throughout history, such as the ice ages and volcanic eruptions. She advocated for the idea that life, nature, environment and climate literacy are interconnected and cannot be confined to a single discipline.

Ms. Duttagupta discussed the need to empower students to become innovative learners who cultivate genuine curiosity through inquisitive, reflective, experimental and collaborative approaches. She believes that learning should extend beyond theoretical knowledge to include real-world applications, ensuring that students engage with issues like climate change in a meaningful and impactful way.



A key aspect of her talk focused on breaking down silos in education and adopting a systems thinking approach that links the head (intellect), heart (empathy) and hand (action). She stressed that climate literacy should foster interdisciplinary learning, allowing students to explore connections across subjects and better understand the interconnectedness of environmental, social and economic systems. Furthermore, Ms. Duttagupta highlighted the critical need for training educators in interdisciplinary, nature-based learning methods, ensuring that they are equipped to guide students in tackling the complex challenges of climate change and sustainability.



Mr. Soumyo Duttagupta, Director of the Office of Postgraduate Studies, Ashoka University

Mr. Soumyo Duttagupta, the Director of the Office of Postgraduate Studies at Ashoka University, brings over 15 years of leadership experience in education, having held CXO roles at renowned organisations. Mr. Duttagupta's perspective on Green Careers was a key highlight of the session.

Mr. Soumyo Duttagupta believes that it is necessary to connect passion to careers- in this case, Green Careers. Letting younger generations ponder and think about what they want will lead to Ikigai (Finding a sense of purpose in the world). He explained that if one's passion is in climate action, then they can take up green jobs which enable adaptation to climate change, limit greenhouse gas emissions, reduce the consumption of energy, minimise waste and protect and restore ecosystems. These jobs are not limited to Government and corporations but in enabling green practices in any role in any organisation.



Mr. Soumyo Duttagupta

Harnessing your passion for climate action – Green Careers!

India's COP's commitment and the push towards a cleaner environment will lead to 30-35 million jobs across green sectors by 2047. The sectors where most jobs will be created will be renewable energy, environmental protection and sustainable development initiatives.

Students can get into these sectors from any discipline they study. If required they can enrol on full-time or part-time programs from reputed Universities in India like Azim Premji University, TERI University, IIM Mumbai or International ones like Oxford and Harvard. Students who are looking for more practical training can also build their skills by enrolling in programs which are run by the Skill Council for Green Jobs (<u>https://sscgj.in/</u>). They can also take memberships in various groups on green sector initiatives and also look for internship opportunities to learn about the applications.

CONCLUSION



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The discussions during the Climate Literacy for All: Bridging Knowledge and Action conference emphasised the need for a multidimensional approach to climate education that transcends traditional boundaries. Over the course of the three sessions, it became clear that fostering climate literacy requires not only equipping individuals with knowledge but also empowering them with the skills to take meaningful action. The conference brought together diverse stakeholders-educators, policymakers, civil society organisations and students-who collectively highlighted the urgency of integrating climate literacy into every aspect of society. A key takeaway from these discussions is the recognition that while knowledge is vital, action is paramount to combating climate change and achieving sustainable development goals (SDGs).

It was evident that climate education should not be confined to the classroom; it must extend into communities, industries and government initiatives. Educators, as agents of change, have a crucial role in shaping the next generation's understanding of climate challenges and solutions. At the same time, policymakers must recognise the need for a robust framework that supports and sustains climate education across all sectors.

The conversations also underscored the importance of a holistic approach that links science, policy and practical actions. For meaningful change, it is essential to integrate climate literacy into the curriculum, not as a standalone subject, but as an interdisciplinary theme that links various fields of study. Moreover, creating real-world opportunities for students to experience and engage with green practices—such as internships in the green sector—was seen as crucial for fostering a deeper understanding of climate action.

The discussions also highlighted the importance of public awareness and government accountability in driving change. Governments play a critical role not just in regulating industries but also in guiding public opinion and providing the necessary infrastructure for sustainable change. There is a strong need for policies that not only promote growth but also safeguard the environment and public health, particularly through education and practical engagement.



RECOMMENDATIONS

The proceedings from the conference indicate a need for combined action, especially addressing the following:

- Strengthen public-private partnerships for climate literacy: Establish partnerships between educational institutions, businesses and government bodies to create sustainable, climate-focused initiatives and programs that can scale nationwide.
- Policy reform for sustainable practices: Advocate for robust regulations and policies that promote sustainable production and consumption and ensure that these policies evolve to counter emerging unsustainable business models in response to changing market dynamics.
- Government accountability in sustainability initiatives: Strengthen the enforcement of environmental policies, periodically review their effectiveness and ensure that the government's commitment to sustainability is evident in both its actions and its support for sustainable education.
- Encourage citizen science and community engagement: Promote citizen science initiatives and grassroots climate action, enabling communities to actively participate in data collection, climate monitoring and environmental conservation efforts.

- Educate for behavioural change: Design educational programs that go beyond knowledge transfer to inspire behavioural change among students, encouraging them to adopt sustainable habits and make responsible choices in their personal and professional lives.
- Enhance interdisciplinary climate education: Foster a systems-thinking approach by integrating climate literacy across various subjects, encouraging students to explore the connections between climate change, ecology, economics and social issues.
- Introduce climate change as a core subject: Incorporate climate change education as part of Environmental Studies (EVS) initially and progressively develop it into a standalone subject. This will equip students from a young age with the knowledge and skills to be aware, empowered and ready to act.

- Integrate green careers in education curricula: Introduce career opportunities in the green sector within school and college curricula, incorporating training and internship programs that provide students access to green sector practices as part of their formal education.
- Promote awareness and access to green jobs: Raise awareness about green job opportunities across various sectors and provide accessible platforms for students and professionals to gain training, certification and mentorship in the green economy. This will ensure a skilled workforce equipped to tackle climate challenges.

In conclusion, the Climate Literacy for All -Bridging Knowledge and Action conference highlighted the necessity of embedding climate education at every level, ensuring that it is accessible, actionable and integrated into all aspects of society. By following these recommendations, we can create a wellrounded, informed and proactive generation equipped to confront the climate crisis headon and drive the transformation towards a sustainable future.





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Report Design & Layout: Sunny Kumari



CLIMATE LITERACY CONFERENCE 2024

